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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/620,293 | Applicant(s) YEATES ET AL. | |
| | Examiner Jamie H. Swartz | Art Unit 3694 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/22/2003</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16, 19, 21, 36, 47, and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 1, the claim states the following steps are for "a payment processing gateway server for processing financial transactions." The claim then proceeds to recite only authentication steps. The claim is not claiming a processing gateway server it is claiming an authentication server.

4. Regarding claims 1-6, 21, 47, 54, the phrase "contract identification" renders the claim indefinite because it is unclear what a "contract identification" is. The claim speaks of it being comprised of two bytes of eight data bits each yet it is unclear if it equates to numbers, letters, or even symbols. It is unclear if it is a form of storage. Paragraph 34 of the specification states, "in one specific example, the contract identification comprises two bytes of 8 bits each." Which specific example is being referred to? The format of the contract identification is unclear. For examination purposes the claim reflects the number of files in which the contract identifications can be stored. Which using binary calculations would be approximately 65,535 files or identifications that can be stored.

5. Regarding claim 19, the word "microcredits" renders the claim indefinite because it is unclear what a "microcredit" is. The definition from the specification is that "microcredits" are directed to a credit format in which small dollar amount transactions may be performed through credit in a cost effective manner." But previously they were defined in a way to believe that they are a payment method. Are "microcredits" a payment method, or a credit format?

6. Regarding claim 36, the claim states that 12 bytes are indicative of a merchant while 4 bytes are indicative of a store. It is unclear what the difference is between a merchant and a store. A merchant owns a store. For examination purposes all the bytes of data are indicative of a merchant.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6, 10-11, 15, 17-21, 25, 27, 31, 38, 47-48, 54-56, 58, 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Willard (US 20050192892 A1).

9. Regarding claim 1, Willard teaches a payment processing gateway server for processing financial transactions (¶ 57). Willard teaches a public network interface

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configured to couple to a public network and receive first financial transaction authorization requests, the first financial transaction authorization requests received from merchants and include transaction specific data, merchant and or store related data which is related to a merchant generating the authorization request and a supplemental header (§§ 37, 57). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the public network interface based upon supplemental header (§§ 37, 43, 57). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§§ 37, 43, 49, 57). Willard teaches the public network interface further configured to send second financial transaction authorization results to merchants in response to the first financial transaction authorization results (§§ 37, 43, 49-50, 57). Willard teaches wherein the supplemental header includes a contract identification field which identifies a contract with a payment provider (§§ 37, 43, 49-50, 57).

10. Regarding claim 2, Willard teaches a memory containing a listing of valid contract identifications and wherein data in the contract identification field is compared with the contract identifications contained in the memory (§§ 39).

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11. Regarding claim 3, Willard teaches wherein the gateway server sends a NACK message to a merchant through the public network interface if the data in the contract identification field does not match the valid contract identifications contained in memory (¶ 111-120).

12. Regarding claim 4, Willard teaches wherein the gateway server sends an ACK message to a merchant through the public network interface if the data in the contract identification field matches a valid contract identification contained in memory (¶ 111-120).

13. Regarding claim 5, Willard teaches wherein the contract identification field comprises two bytes of 8 data bits each (¶ 37-39).

14. Regarding claim 6, Willard teaches wherein the gateway server includes a memory which contains log data related to data carried in the contract identification field of supplemental headers received from a plurality of first financial transaction authorization requests (¶ 37-44, 64, 87).

15. Regarding claim 10, Willard teaches wherein the gateway processor maintains an open socket connection with a financial institution throughout the financial network interface during processing of a financial transaction authorization request (¶ 49).

Willard discloses an open Internet connection with a financial institution.

16. Regarding claim 11, Willard teaches wherein the supplemental header includes a payment type field (§§ 43, 49-62)..

17. Regarding claim 15, Willard teaches wherein an ACK transmission through the public network interface by the gateway server to a merchant does not precede a transmission of an authorization result (§§ 111-120).

18. Regarding claim 17, Willard teaches a payment processing gateway server for processing financial transactions (§§ 57). Willard teaches a public network interface configured to couple to a public network and receive first financial authorization requests, financial transaction the first authorization requests received from merchants and include transaction specific data, merchant and/or related data which is related to a merchant generating the authorization request and a supplemental header (§§ 37, 57). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the public network interface based upon supplemental header (§§ 37, 43, 57). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§§ 37, 43, 49, 57). Willard teaches the

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public network interface further configured to send second financial transaction authorization results to merchants in response to the first financial transaction authorization results (§§ 37, 43, 49-50, 57). Willard teaches wherein the supplemental header includes a payment type identification field which identifies a financial network coupled to the financial network interface for processing the first financial transaction authorization request (§§ 37, 43, 49-50, 57).

19. Regarding claim 18, Willard teaches wherein the payment type identification field identifies a transaction type, payment network and/or protocol (§§ 72, 71, 37-43)

20. Regarding claim 19, Willard teaches wherein the transaction type is selected from the group of transaction types consisting of gift cards, coupons, smart credit cards and "microcredits" (§§ 42-43).

21. Regarding claim 20, Willard teaches wherein the payment type identification field describes a protocol format of the transaction specific data (§§ 38, 115).

22. Regarding claim 21, Willard teaches wherein the supplemental header further includes a contract identification field which identifies a contract with a payment provider (§§ 37-39).

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23. Regarding claim 25, Willard teaches wherein the gateway processor maintains an open socket connection with a financial institution through the financial network interface during processing of a financial transaction authorization request (§ 49). Willard discloses an open Internet connection with a financial institution.

24. Regarding claim 27, Willard teaches wherein the gateway processor maintains an open socket connection with a merchant through the public network during processing of a financial transaction authorization request (§ 49). Willard discloses an open Internet connection with a financial institution.

25. Regarding claim 31, wherein an ACK transmission through the public network interface by the gateway server to a merchant does not precede a transmission of an authorization result (§ 111-120).

26. Regarding claim 38, Willard teaches wherein the gateway processor provides a web service on the public network interface (§ 37-45).

27. Regarding claim 47, Willard teaches wherein the financial transaction authorization request includes a supplemental header containing a contract identification field (§ 37, 43, 49-50, 57).

28. Regarding claim 48, Willard teaches wherein the financial transaction authorization request includes a supplemental header containing a payment type identification field (¶ 37, 43, 49-50, 57).

29. Regarding claim 54, Willard teaches wherein the supplemental header comprises a contract identification field (¶ 37, 43, 49-50, 57).

30. Regarding claim 55, Willard teaches wherein the supplemental header comprises a payment type identification field (¶ 37, 43, 49-50, 57).

31. Regarding claim 56, Willard teaches wherein the transaction invariant data is selected from the data consisting of merchant name, country, state, location, zip code, merchant category and time zone (¶ 58).

32. Regarding claim 58, Willard teaches a payment processing gateway server for processing debit type financial transactions (¶ 57, 65-69). Willard teaches a public network interface configured to couple to a public network and receive first financial transaction authorization requests, the first financial transaction authorization requests received from merchants and include transaction specific data, and merchant and/or store related data which is related to a merchant generating the authorization request (¶ 37-57). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the public network interface (¶ 38-

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39, 55-57). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§§ 38-39, 51, 55-57, 70-100). Willard teaches a public network interface further configured to send second financial transaction authorization results to merchants in response financial transaction results (§§ 43-50, 59-64). Willard teaches the first authorization financial network interface further configured to send an acknowledgement to the financial institution independently of receipt of an acknowledgement from the merchant in response to the second financial authorization results (§§ 43-50, 59-64, 70-100).

33. Regarding claim 61, Willard teaches wherein the gateway processing sends an acknowledgement to the financial institution (§§ 43-50, 59-64, 70-100).

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. Claims 7-9, 22-24, 33-37, 41, 46, 53, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Official Notice.

36. Regarding claim 7, Willard teaches including a memory containing a cache of merchant or store/location invariant data and wherein the financial transaction authorization requests include a cache-key field which identifies data in the cache (§§ 51, 64, 87). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

37. Regarding claim 8, Willard teaches wherein financial transaction authorization requests include a cacheable data field and wherein the gateway processor populates the cache contained in the memory with data received in the cacheable data field (§§ 64, 87). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable

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permanent system storage on information that is only temporarily used which would be a waste of system resources.

38. Regarding claim 9, Willard teaches wherein the cache-key comprises a 128 bit data field (§ 43, 51, 64, 87). Willard discloses merchant identifiers. Official Notice that the use of cache memory is old and well-known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

39. Regarding claim 22, Willard teaches a memory containing a cache of merchant or store/location invariant data and wherein the financial transaction authorization requests include a cache-key field which identifies data in the cache (§ 51, 64, 87). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

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40. Regarding claim 23, Willard teaches wherein financial transaction authorization requests include a cacheable data field and wherein the gateway processor populates the cache contained in the memory with data received in the cacheable data field (§§ 64, 87). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

41. Regarding claim 24, Willard teaches wherein cache-key comprises a 128 bit data field (§§ 43, 51, 64, 87). Willard discloses merchant identifiers. Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

42. Regarding claim 33, Willard teaches a payment processing gateway server for processing financial transactions (§§ 57). Willard teaches a public network interface configured to couple to a public network and receive first financial authorization requests, financial transaction the first authorization requests received from merchants

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and which include transaction specific data, cache-able data and a cache key (§ 37, 57). Willard teaches a gateway processor configured to process first financial transaction authorization requests received through the public network interface based upon a supplemental header (§ 37, 43, 57). Willard teaches a financial network interface configured to couple to at least one financial network and transmit second financial transaction authorization requests to a financial institution coupled to the at least one financial network based upon first financial transaction authorization requests, the financial network interface further configured to receive first financial transaction authorization results from the financial institution (§ 37, 43, 49, 57). Willard teaches and the public network interface further configured to send second financial transaction authorization results to merchants in response to the first financial transaction authorization results (§ 37, 43, 49-50, 57). Willard teaches a memory configured to cache the cache-able data from the first financial authorization request and index the cache in accordance with the cache key (§ 49, 90). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

43. Regarding claim 34, Willard teaches wherein the cache key comprises 128 bits of data (§ 51, 64, 87). Official Notice that the use of cache memory is old and well known

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as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

44. Regarding claim 35, Willard teaches wherein the cache key comprises a GUID (Globally Unique Identifier) (§§ 58-65, 117). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

45. Regarding claim 36, Willard teaches wherein the cache key comprises data indicative of a merchant (§§ 43-47, 61-65). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

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46. Regarding claim 37, Willard teaches wherein the cache-able data includes data selected from the group of data consisting of merchant name, country, state, location, zip code, merchant category and time zone (§ 58). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

47. Regarding claim 41, Willard teaches a public network interface, a gateway processor, a financial network, and a memory. Official Notice is taken that storing duplicate data is old and well known. It is also old and well known that this data would be referred to as a backup. Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

48. Regarding claim 46, Willard teaches wherein the gateway processor transmits a request message to merchants through the public network interface which requests a transmission of cache-able data for populating the cache contained in the memory (§

43-50). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

49. Regarding claim 53, Willard teaches a financial transaction authorization request (§§ 50-68). Willard teaches a supplemental header (§§ 37, 57). Willard teaches a cacheable data field configured to contain transaction invariant data (§§ 51, 64, 87). Willard teaches a cache key field configured to contain an index key to a database list or hash-table (§§ 49,90). Willard teaches a transaction specific data field configured to contain data related to a financial transaction (§§ 37, 43, 49-50, 57). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

50. Regarding claim 57, Willard teaches wherein the cache key field comprises 128 bits (§§ 51, 64, 87). Official Notice that the use of cache memory is old and well known as it provides the benefit of more efficiently utilizing storage. Cache is temporary storage

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that conveniently stores data that is only needed temporarily. If you stored everything in permanent storage, you'd quickly, needlessly, and inefficiently use up valuable permanent system storage on information that is only temporarily used which would be a waste of system resources.

51. Claims 12-14, 26, 28-30, and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Keresman et al. (US 7051002 B2).

52. Regarding claim 12, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions. In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

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53. Regarding claim 13, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

54. Regarding claim 14, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a

commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

55. Regarding claim 26, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein socket comprises an SSL connection (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

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56. Regarding claim 28, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman wherein the first financial transaction authorization requests are in accordance with an HTTPS standard teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions. In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

57. Regarding claim 29, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to

conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

58. Regarding claim 30, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

59. Regarding claim 49, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a HTTPS standard. However, Keresman wherein the first financial transaction authorization requests are in accordance with an HTTPS standard teaches wherein financial transaction authorization request is in accordance with an HTTPS standard (col. 6, line 57 – col. 7, line 7, col. 7, line 40 – col. 8, line 37). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of HTTPS. HTTPS is a variant of HTTP, which is used for handling secure transactions. In any type of computer related financial transaction security is very important. Using HTTPS would keep important data secure.

60. Regarding claim 50, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a XML standard. However, Keresman teaches wherein a financial transaction authorization request is in accordance with an XML standard (col. 6, line 57 – col. 7, line 7, col. 8, line 8 – col. 10, line 6). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for

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processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of XML. XML is a general-purpose markup language. It was designed to be human and machine readable, it supports Unicode, it contains strict syntax and parsing requirements which make necessary parsing algorithms simple, XML is heavily used as a format for document storage and processing, and it is based on international standards.

61. Regarding claim 51, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a secure socket layer. However, Keresman teaches wherein a financial transaction authorization request is in accordance with a secure socket layer (col. 6, line 57 – col. 7, line 7). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Keresman discloses a method for processing authentication of a consumer using different types of payment instruments to conduct a commercial transaction over a communications network with a merchant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a secure socket layer. Secure socket layer protocol is a standard for transmitting confidential data such as credit card numbers over the Internet. Most true business sites support this feature, which allows more security in

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data, transmitted over the WWW. This is the standard minimum safe security level for true business on the Internet.

62. Claims 16, 32, 40, 52, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Jacobs et al. (US 6334114 B1).

63. Regarding claim 16, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial transaction authorization implementation synchronizes requests using a stateless logic and the gateway processor further socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

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64. Regarding claim 32, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial transaction authorization requests using a stateless logic implementation and the gateway processor further synchronizes socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

65. Regarding claim 40, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a runtime environment. However, Jacobs teaches wherein the gateway processor operates in accordance with a common language run time environment (col. 7, line 63 – col. 10, line 3). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the

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art at the time of the invention to modify Willard to include the details of a runtime environment. A runtime environment is important because it is a collection of subroutines and environment variables that provide commonly used functions and data for a program while it is running. A runtime environment is used to abstract the hardware details out of the code implementation, so that the code can be written once and run on any kind of CPU or operating system, as long as that machine has a runtime environment.

66. Regarding claim 52, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein the gateway processor processes financial transaction authorization requests using a stateless logic implementation and the gateway processor further synchronizes socket sessions with financial institutions through the financial network interface (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

67. Regarding claim 62, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach a stateless logic. However, Jacobs teaches wherein operation of the gateway processor on the financial transaction authorization requests is stateless (col. 18, line 45 – col. 32, line 14). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Jacob discloses processing transactions in networked computer systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a stateless logic. Stateless treats each request as an independent transaction, unrelated to any previous request. This simplifies the server design because it does not need to allocate storage to deal with conversations in progress or worry about freeing it if a client dies in mid-transaction.

68. Claims 39, 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Courts et al. (US 6480894).

69. Regarding claim 39, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach maintaining a state. However, Courts teaches wherein the web service maintains state for first financial transaction authorization requests (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant

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using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction.

70. Regarding claim 42, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard discloses databases (§§ 37-50). Willard does not specifically teach maintaining a state. However, Courts teaches including database configured to maintain the state (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction. A database would allow the collection managed and stored in one place and all accessible via the same server.

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71. Regarding claim 43, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach web clusters. However, Courts teaches a plurality of gateway processors configured to form a web cluster (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of a web cluster. With multiple servers providing the same service there is a resilience to failure and a load balancing between the servers.

72. Regarding claim 44, Willard teaches a director configured to direct first financial transaction authorization requests from a specific merchant to a specific gateway processor (¶ 37, 65, 68).

73. Regarding claim 45, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach maintaining a state. However, Courts teaches a state server accessible by the web cluster configured to maintain state-related data (col. 1, line 50 – col. 10, line 32). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Courts discloses a user based system with multiple web transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of maintaining a state. Without a

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way to manage state, between web transactions the system will have "forgotten" information about the user and the context of the session. This can be further complicated by the fact that in many large web systems the user does not interact with the same web server from transaction to transaction. A database would allow the collection managed and stored in one place and all accessible via the same server.

74. Claims 59 and 60 rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 20050192892 A1) in view of Stewart et al (US 20020120846 A1).

75. Regarding claim 59, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach duplicate transactions. However, Stewart teaches wherein the gateway processor is configured to recognize a duplicate financial transaction authorization request from the merchant within a time limit (§§ 65-79). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Stewart discloses an electronic payment and authentication system that includes features to verify the authenticity of a payer, validate debit data, and facilitate debit payment transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of recognizing duplicate financial transactions. Duplicate financial transactions charge the customer multiple times for an item purchased. Depending on the amount charged the effects of charging multiple times

could cause problems to the customer. Having a system to recognize this saves time and helps maintain good customer relations.

76. Regarding claim 60, Willard teaches a public interface, a gateway processor, a financial network, and a public network. Willard does not specifically teach duplicate transactions. However, Stewart teaches wherein the gateway processor transmits a message to the merchant in response to the duplicate message (§¶ 65-79). Willard discloses transaction processing and authorization between a customer and a merchant using computer networks. Stewart discloses an electronic payment and authentication system that includes features to verify the authenticity of a payer, validate debit data, and facilitate debit payment transactions. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Willard to include the details of recognizing duplicate financial transactions and sending a message. Duplicate financial transactions charge the customer multiple times for an item purchased. Depending on the amount charged the effects of charging multiple times could cause problems to the customer. Having a system to recognize this saves time and helps maintain good customer relations. When the message is sent it will inform the employee of the error and allows for the accurate settlement of the till at the end of the day.

77. Examiner's Note: The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are

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applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

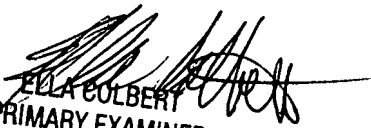
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie H. Swartz whose telephone number is (571) 272-7363. The examiner can normally be reached on 8:00am-4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Jamie Swartz
June 21, 2007


ELLA COLBERT
PRIMARY EXAMINER